# THIS PAGE IS INSERTED BY OIPE SCANNING AND IS NOT PART OF THE OFFICIAL RECORD

# **Best Available Images**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

**BLACK BORDERS** 

TEXT CUT OFF AT TOP, BOTTOM OR SIDES

**FADED TEXT** 

**BLURRY OR ILLEGIBLE TEXT** 

SKEWED/SLANTED IMAGES

COLORED PHOTOS HAVE BEEN RENDERED INTO BLACK AND WHITE

VERY DARK BLACK AND WHITE PHOTOS

UNDECIPHERABLE GRAY SCALE DOCUMENTS

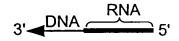
IMAGES ARE THE BEST AVAILABLE COPY. AS RESCANNING WILL NOT CORRECT IMAGES, PLEASE DO NOT REPORT THE IMAGES TO THE PROBLEM IMAGE BOX.

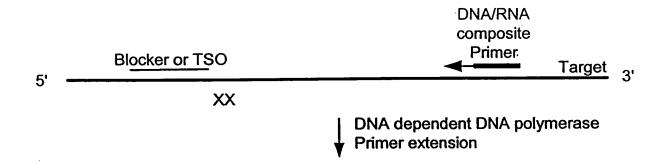
Docket No.: 492692000102

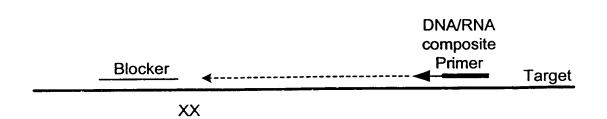
Title: METHODS AND COMPOSITIONS FOR LINEAR ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE SEQUENCES USING A RNA DNA COMPOSITE PRIMER

# FIGURE 1A

# **DNA/RNA** composite Primer





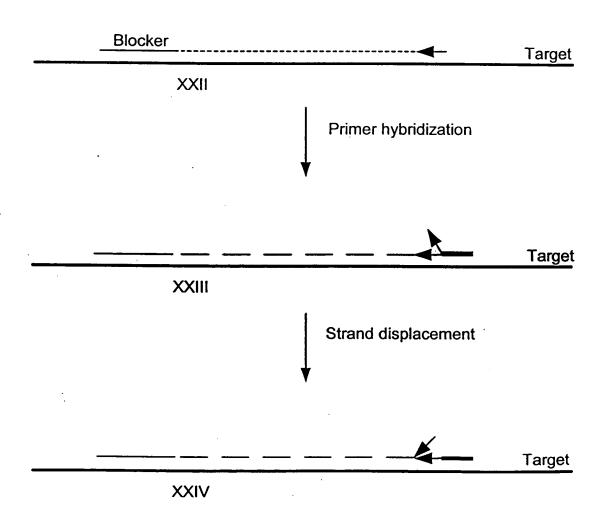


Docket No.: 492692000102

Title: METHODS AND COMPOSITIONS FOR LINEAR ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE SEQUENCES USING A RNA DNA COMPOSITE PRIMER

#### FIGURE 1B

RNase H cleavage of the RNA portion of the extension product



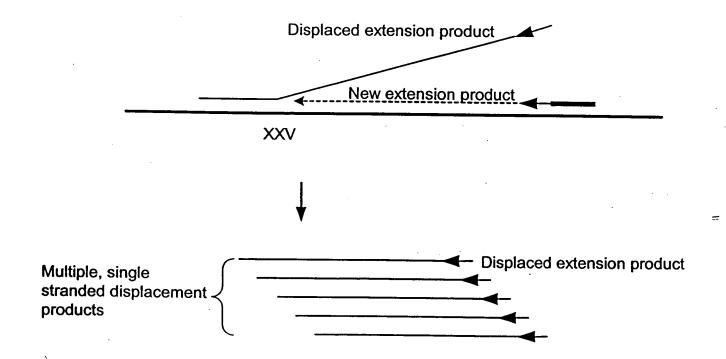
Docket No.: 492692000102

Inventor: Nurith KURN

Title: METHODS AND COMPOSITIONS FOR LINEAR ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE SEQUENCES USING A RNA DNA COMPOSITE PRIMER

# FIGURE 1C

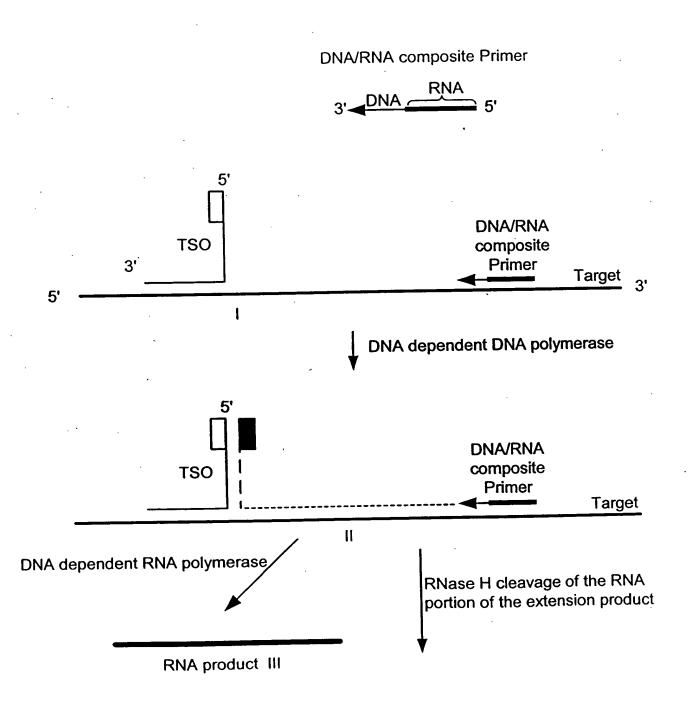
Primer extension strand displacement

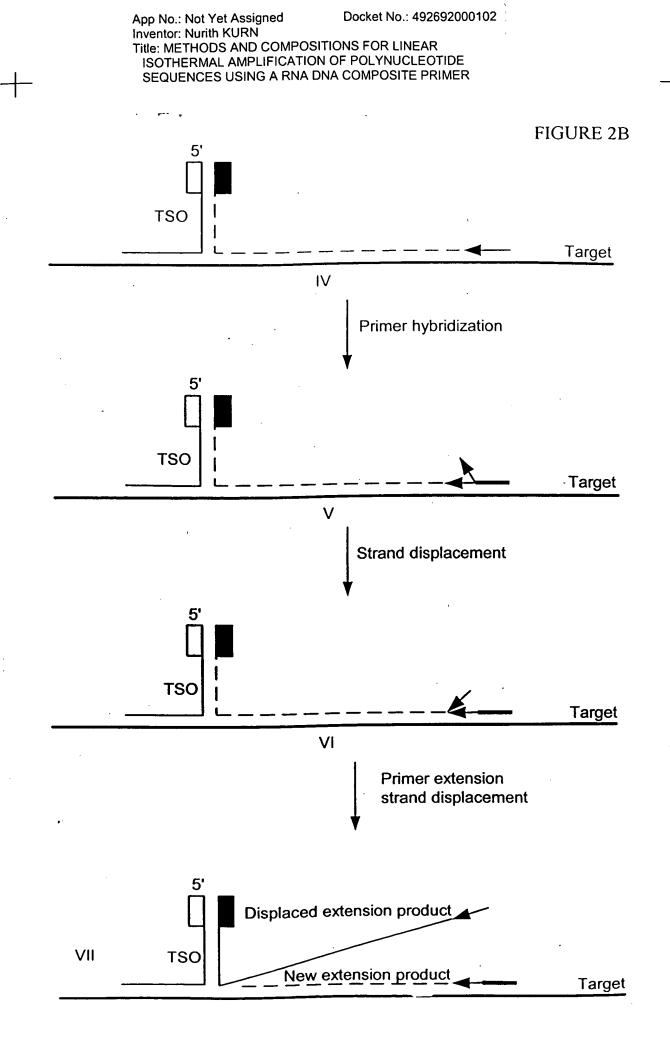


Docket No.: 492692000102

Title: METHODS AND COMPOSITIONS FOR LINEAR
ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE
SEQUENCES USING A RNA DNA COMPOSITE PRIMER

#### FIGURE 2A

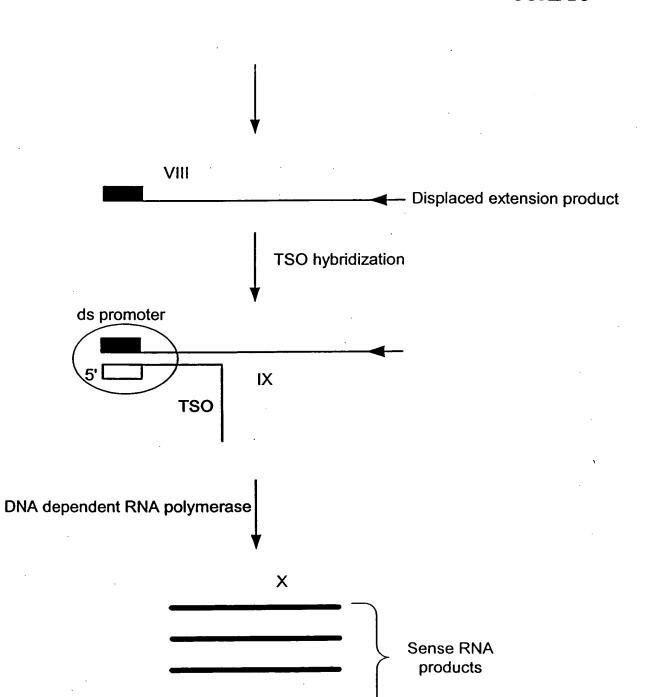




Docket No.: 492692000102

Title: METHODS AND COMPOSITIONS FOR LINEAR ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE SEQUENCES USING A RNA DNA COMPOSITE PRIMER

# FIGURE 2C



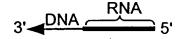
Docket No.: 492692000102

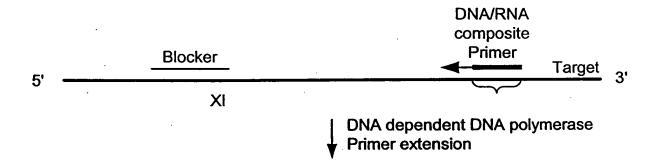
Inventor: Nurith KURN

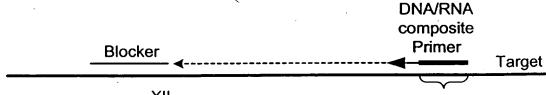
Title: METHODS AND COMPOSITIONS FOR LINEAR ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE SEQUENCES USING A RNA DNA COMPOSITE PRIMER

FIGURE 3A

# **DNA/RNA** composite Primer







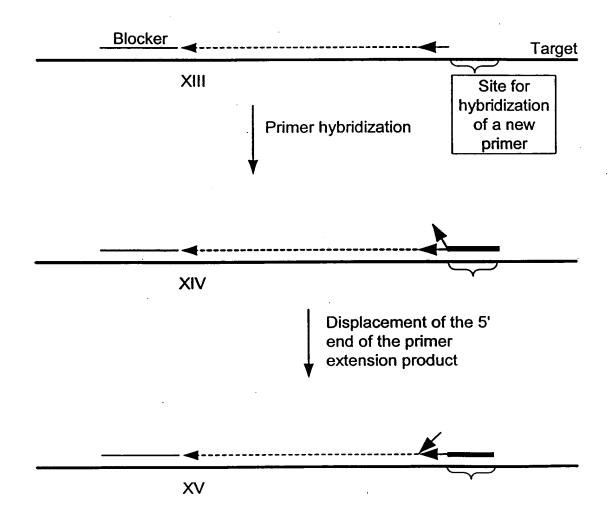
XII

Docket No.: 492692000102

Title: METHODS AND COMPOSITIONS FOR LINEAR ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE SEQUENCES USING A RNA DNA COMPOSITE PRIMER

### FIGURE 3B

RNase H cleavage of the RNA portion of the extension product

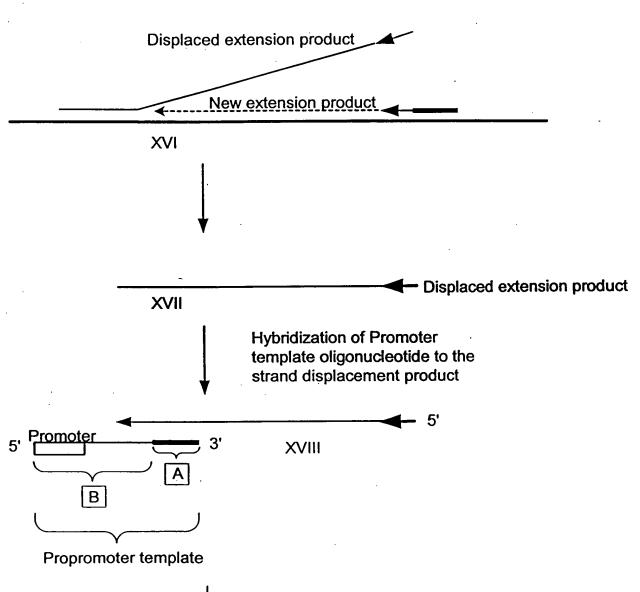


Docket No.: 492692000102

Title: METHODS AND COMPOSITIONS FOR LINEAR ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE SEQUENCES USING A RNA DNA COMPOSITE PRIMER

FIGURE 3C

Primer extension strand displacement



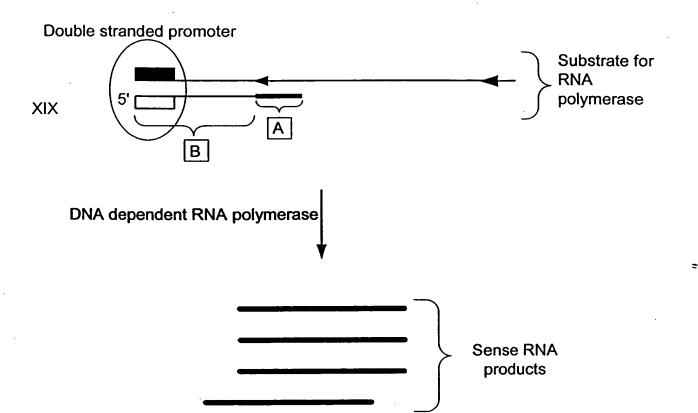
DNA polymerase extension of displaced product

Docket No.: 492692000102

Inventor: Nurith KURN

Title: METHODS AND COMPOSITIONS FOR LINEAR ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE SEQUENCES USING A RNA DNA COMPOSITE PRIMER

#### FIGURE 3D



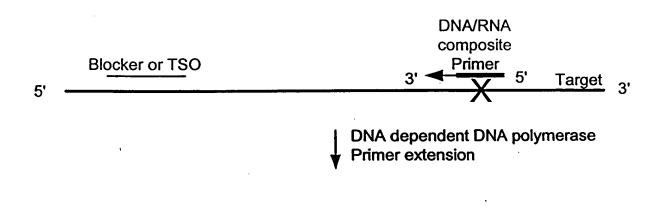
Docket No.: 492692000102

Title: METHODS AND COMPOSITIONS FOR LINEAR ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE SEQUENCES USING A RNA DNA COMPOSITE PRIMER

FIGURE 4A

X denotes a mutation on the target DNA at a site complementary to the 5' RNA portion of the primer.

As shown, amplification of the target NA is blocked when a mutation is present.



Blocker or TSO Primer

Target

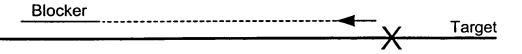
Docket No.: 492692000102

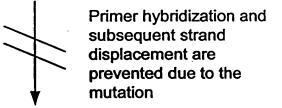
Inventor: Nurith KURN

Title: METHODS AND COMPOSITIONS FOR LINEAR ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE SEQUENCES USING A RNA DNA COMPOSITE PRIMER

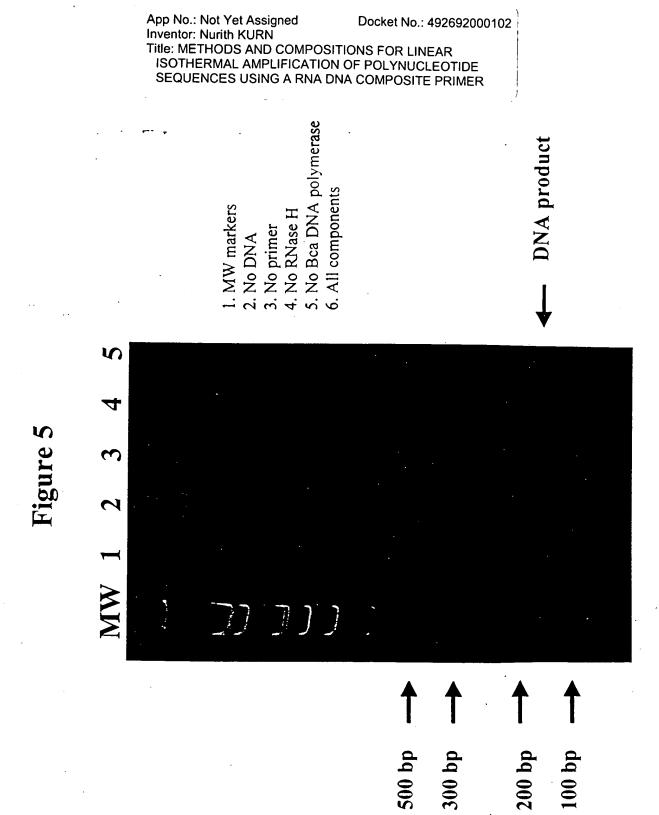
FIGURE 4B

RNase H cleavage of the RNA portion of the extension product









Docket No.: 492692000102

App No.: Not Yet Assigned Inventor: Nurith KURN

Title: METHODS AND COMPOSITIONS FOR LINEAR ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE

Docket No.: 492692000102

Inventor: Nurith KURN

Title: METHODS AND COMPOSITIONS FOR LINEAR ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE SEQUENCES USING A RNA DNA COMPOSITE PRIMER

RNA product

9 10 11 12  $\infty$ 9 O

300 bp

Title: METHODS AND COMPOSITIONS FOR LINEAR ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE SEQUENCES USING A RNA DNA COMPOSITE PRIMER

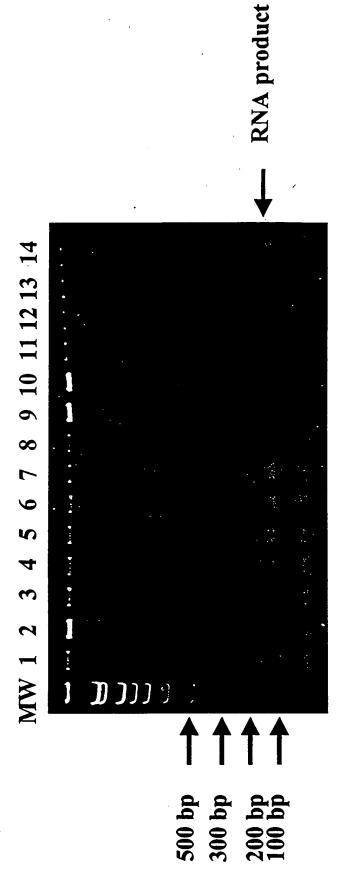


Figure 8

Docket No.: 492692000102

Title: METHODS AND COMPOSITIONS FOR LINEAR ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE SEQUENCES USING A RNA DNA COMPOSITE PRIMER

Figure 9

1 2 3

hybridized probe unhybridized probe

Docket No.: 492692000102

Inventor: Nurith KURN

Title: METHODS AND COMPOSITIONS FOR LINEAR ISOTHERMAL AMPLIFICATION OF POLYNUCLEOTIDE SEQUENCES USING A RNA DNA COMPOSITE PRIMER

RNA product 9 10 11 12 13 14  $\infty$ 9 S MW 1 **)** 11111 500 bp 200 bp 100 bp

Figure 10